

**WATER QUALITY DATA FOR RIVER GANGA**  
(Summer Average: March-June)

SUMMER AVERAGE VALUES FOR WATER QUALITY ON MAIN STEM OF RIVER GANGA UNDER GANGA ACTION PLAN

| STATION NAME   | DISTANCE<br>IN KM | DISSOLVED OXYGEN (DO) (mg/l) (Acceptable limit 5 mg/l or more) |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |                  |      |      |      |      |      |
|----------------|-------------------|--|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------------------|------|------|------|------|------|
|                |                   | 1986   | 1987 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2001 | 2002 | 2003 | 2004 | 2005             | 2006 | 2007 | 2008 | 2009 | 2010 |
| Rishikesh      | 0                 | 8.1  | 8.1  | 7.1  | 6.8  | 8.5  | 9.0  | 9.6  | 9.0  | 8.9  | 8.9  | 9.3  | 9.0  | 9.1  | 8.2  | 9.2  | 8.4  | 8.5              | 8.3  | 8.2  | 8.1  | 8.0  | 7.48 |
| Hardwar D/S    | 30                | 8.1  | 7.7  | 6.9  | 7.1  | 7.7  | 7.2  | 8.8  | 8.4  | 8.4  | 8.8  | 8.6  | 8.6  | 8.8  | 7.8  | 9.0  | 8.1  | 8.1              | 8.1  | 8.1  | 7.9  | 7.8  | 7.38 |
| Garhmukteshwar | 175               | 7.8  | 4.7  | 6.1  | 7.2  | -    | 8.5  | 8.0  | 7.9  | 7.7  | 8.1  | 8.1  | 7.9  | 7.8  | 7.4  | 8.2  | 7.6  | 7.7              | 7.7  | 7.9  | 7.8  | 7.9  | 7.43 |
| Kannauj U/S    | 430               | 7.2  | 7.7  | 7.1  | 7.3  | 7.7  | 7.2  | 8.8  | 8.0  | 8.0  | 7.8  | 7.4  | 7.1  | 7.4  | 7.6  | 7.9  | 6.95 | 8.5 <sup>®</sup> | 7.3  | 6.8  | 6.5  | 7.2  | 7.32 |
| Kannauj D/S    | 433               | NA   | 6.5  | 6.1  | 7.1  | 7.1  | 8.4  | 7.2  | 7.8  | 7.9  | 7.5  | 7.4  | 8.8  | 6.8  | 6.5  | 6.2  | 7.85 | 7.6 <sup>®</sup> | 6.45 | 6.4  | 6.2  | 7.6  | 7.03 |
| Kanpur U/S     | 530               | 7.2  | 7.8  | 7.9  | 7.8  | 7.5  | 7.5  | 7.0  | 8.1  | 7.8  | 7.5  | 6.7  | 6.8  | 4.9  | 6.2  | 6.7  | 7.18 | 6.2 <sup>®</sup> | 6.2  | 5.8  | 4.9  | 7.5  | 6.35 |
| Kanpur D/S     | 548               | 6.7  | 6.2  | 4.4  | 5.1  | 5.6  | 5.2  | 4.6  | 6.8  | 6.4  | 5.6  | 5.2  | 7.5  | 4.8  | 7.2  | 4.4  | 5.28 | 4.7 <sup>®</sup> | 3.9  | 4.6  | 6.0  | 7.5  | 6.18 |
| Allahabad U/S  | 733               | 6.4  | 7.8  | 8.0  | 7.1  | 6.8  | 6.9  | 8.2  | 8.2  | 8.9  | 7.4  | 7.7  | 8.8  | 7.5  | 13.0 | 10.0 | 7.82 | 8.5 <sup>®</sup> | 7.1  | 7.9  | 8.4  | 8.1  | 7.67 |
| Allahabad D/S  | 743               | 6.6  | 6.7  | 6.9  | 6.4  | 7.6  | 7.2  | 7.4  | 8.2  | 8.5  | 7.6  | 8.2  | 7.9  | 7.2  | 8.2  | 7.3  | 6.58 | 8.4 <sup>®</sup> | 8.5  | 8.8  | 7.7  | 8.1  | 7.98 |
| Varanasi U/S   | 908               | 5.6  | 8.4  | 7.8  | 7.6  | 7.3  | 8.2  | 7.2  | 8.5  | 8.0  | 8.8  | 8.8  | 8.2  | 6.5  | 10.8 | 7.2  | 6.30 | 8.6 <sup>®</sup> | 8.7  | 8.1  | 7.5  | 7.8  | 8.46 |
| Varanasi D/S   | 916               | 5.9  | 8.6  | 7.2  | 6.8  | 7.1  | 7.6  | 6.8  | 8.0  | 7.7  | 8.7  | 6.6  | 8.4  | 7.2  | 7.5  | 8.1  | 5.55 | 8.3 <sup>®</sup> | 8.65 | 8.4  | 7.3  | 7.7  | 7.85 |
| Patna U/S      | 1188              | 8.4  | 8.5  | 7.7  | 8.1  | 8.1  | 8.2  | 7.0  | 6.8  | 7.3  | 7.5  | 7.0  | 7.7  | 7.8  | 7.0  | 7.5  | 6.55 | 7.4              | 7.4  | 7.1  | 6.0  | 7.0  | 6.13 |
| Patna D/S      | 1198              | 8.1  | 8.7  | 7.5  | 7.4  | 8.0  | 8.0  | 7.2  | 6.9  | 7.0  | 7.1  | 7.2  | 7.8  | 7.7  | 7.1  | 7.8  | 6.73 | 8.0              | 8.1  | 6.9  | 5.9  | 6.8  | 6.10 |
| Rajmahal       | 1508              | 7.8  | 8.1  | 7.8  | 7.5  | 8.1  | 8.5  | 7.6  | 7.6  | 7.3  | 7.2  | 6.9  | 7.5  | 7.7  | 7.9  | 7.5  | 6.90 | 7.4              | 7.2  | 7.4  | 6.2  | 6.5  | 6.35 |
| Palta          | 2050              | NA   | 7.3  | 6.8  | 7.3  | 7.4  | 7.1  | 6.8  | 6.7  | 6.6  | 6.5  | 7.3  | NA   | 6.8  | 7.2  | 7.2  | 7.55 | 7.0              | 6.96 | 6.9  | 6.9  | 7.2  | 7.61 |
| Uluberia       | 2500              | NA   | 5.8  | 6.4  | 5.9  | 6.9  | 6.1  | 6.8  | 6.6  | 5.5  | 5.1  | 6.6  | NA   | -    | 5.4  | 5.6  | 6.33 | 5.4              | 5.45 | 6.8  | 5.3  | 5.4  | 6.51 |

| STATION NAME   | DISTANCE<br>IN KM | BIOCHEMICAL OXYGEN DEMAND (BOD) (mg/l) (Acceptable limit less than 3mg/l) |      |      |      |      |      |      |      |      |      |      |      |                   |      |      |                   |                  |      |      |      |      |      |
|----------------|-------------------|---|------|------|------|------|------|------|------|------|------|------|------|-------------------|------|------|-------------------|------------------|------|------|------|------|------|
|                |                   | 1986  | 1987 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2001              | 2002 | 2003 | 2004              | 2005             | 2006 | 2007 | 2008 | 2009 | 2010 |
| Rishikesh      | 0                 | 1.7   | 2.8  | 1.5  | 1.1  | 1.2  | 1.3  | 2.0  | 1.5  | 1.0  | 1.1  | 1.1  | 1.0  | 1.1               | 1.2  | 0.5  | 1.1               | 1.0              | 1.1  | 1.2  | 1.2  | 1.0  | 1.48 |
| Hardwar D/S    | 30                | 1.8   | 3.9  | 1.8  | 1.1  | 2.0  | 1.4  | 2.1  | 1.7  | 1.1  | 1.3  | 1.6  | 1.2  | 1.4               | 1.7  | 0.8  | 1.5               | 1.4              | 1.3  | 1.3  | 1.4  | 1.3  | 1.90 |
| Garhmukteshwar | 175               | 2.2   | 2.7  | 3.4  | 1.6  | NA   | 1.6  | 2.5  | 2.4  | 1.5  | 1.5  | 1.8  | 1.4  | 1.8               | 2.2  | 1.2  | 1.9               | 2.0              | 2.1  | 2.0  | 1.9  | 2.0  | 2.18 |
| Kannauj U/S    | 430               | 5.5   | 2.7  | 2.6  | NA   | 2.1  | 2.3  | 2.7  | 2.4  | 2.9  | 3.4  | 3.6  | 5.3  | 14.4 <sup>^</sup> | 1.1  | 1.2  | 1.73              | 1.7 <sup>®</sup> | 1.11 | 1.7  | 2.9  | 1.5  | 4.18 |
| Kannauj D/S    | 433               | NA  | 5.1  | 3.0  | 3.0  | 2.7  | 2.5  | 3.0  | 3.2  | 3.2  | 3.7  | 3.5  | 4.8  | 11.8 <sup>^</sup> | 4.2  | 3.3  | 3.18              | 4.5 <sup>®</sup> | 4.2  | 4.1  | 3.1  | 4.8  | 4.58 |
| Kanpur U/S     | 530               | 7.2   | 2.9  | 2.7  | 1.6  | 1.7  | 1.9  | 5.0  | 2.0  | 2.8  | 3.1  | 4.3  | 4.6  | 14.5 <sup>^</sup> | 3.8  | 3.7  | 3.20              | 4.3 <sup>®</sup> | 6.8  | 2.9  | 3.4  | 3.8  | 3.34 |
| Kanpur D/S     | 548               | 8.6   | 9.7  | 3.5  | 65.8 | 25.0 | 24.5 | 8.5  | 5.5  | 4.1  | 5.4  | 6.4  | 6.5  | 18.5 <sup>^</sup> | 4.8  | 6.1  | 5.73              | 5.4              | 6.8  | 5.2  | 4.1  | 3.9  | 4.16 |
| Allahabad U/S  | 733               | 11.4  | 7.0  | 2.6  | 2.3  | 2.0  | 1.8  | 2.3  | 4.5  | 2.5  | 3.3  | 4.3  | 1.8  | 5.3               | 8.0  | 4.8  | 7.38 <sup>#</sup> | 5.5 <sup>®</sup> | 4.9  | 7.5  | 4.8  | 6.3  | 5.51 |
| Allahabad D/S  | 743               | 15.5  | 8.2  | 2.0  | 1.7  | 1.9  | 1.9  | 3.6  | 3.2  | 3.3  | 2.1  | 2.6  | 3.2  | 3.6               | 3.8  | 3.2  | 3.58              | 3.1 <sup>®</sup> | 3.2  | 4.1  | 3.2  | 4.0  | 4.41 |
| Varanasi U/S   | 908               | 10.1  | 4.1  | 2.6  | 1.2  | 0.9  | 0.8  | 1.8  | 2.6  | 2.2  | 2.4  | 2.9  | 2.2  | 2.5               | 3.0  | 2.5  | 2.60              | 2.0 <sup>®</sup> | 2.1  | 2.3  | 2.2  | 3.8  | 2.26 |
| Varanasi D/S   | 916               | 10.6  | 4.8  | 5.9  | 1.9  | 1.3  | 1.0  | 2.9  | 1.4  | 2.3  | 3.1  | 4.3  | 3.7  | 4.4               | 2.5  | 5.4  | 2.65              | 2.3 <sup>®</sup> | 2.25 | 3.7  | 3.0  | 3.1  | 3.78 |
| Patna U/S      | 1188              | 2.0   | 1.9  | 0.3  | 1.4  | 1.2  | 1.2  | 1.6  | 1.5  | 2.0  | 2.0  | 1.2  | 1.9  | 1.9               | 1.8  | 2.0  | 1.63              | 2.0              | 2.0  | 1.7  | 1.7  | 1.6  | 1.79 |
| Patna D/S      | 1198              | 2.2   | 2.1  | 0.3  | 0.9  | 1.6  | 1.5  | 1.6  | 1.4  | 1.6  | 1.3  | 1.6  | 2.4  | 2.4               | 1.9  | 2.8  | 1.65              | 2.2              | 2.3  | 1.8  | 2.4  | 2.1  | 2.20 |
| Rajmahal       | 1508              | 1.8   | 1.6  | 0.3  | 1.0  | 0.6  | 0.7  | 1.9  | 1.7  | 1.3  | 1.4  | 1.1  | 1.5  | 1.5               | 1.4  | 2.2  | 2.10              | 1.8              | 1.95 | 1.6  | 2.0  | 1.6  | 1.63 |
| Palta          | 2050              | NA  | 1.0  | 0.9  | 0.8  | 1.0  | 0.9  | 2.5  | 2.1  | 1.6  | 2.1  | 2.2  | NA   | 1.3               | 2.6  | 2.2  | 2.03              | 3.1              | 2.58 | 2.6  | 2.2  | 2.7  | 2.53 |
| Uluberia       | 2500              | NA  | 1.1  | 1.0  | 0.8  | 1.0  | 0.9  | 3.2  | 2.8  | 2.0  | 2.4  | 2.2  | NA   | -                 | 1.9  | 1.9  | 2.43              | 2.6              | 2.64 | 3.2  | 3.6  | 2.4  | 2.69 |

\* Mean value for the months of March to June when the temperatures are high and flows are low.  
NA --> Date not available.

Source: BHEL, Hardwar  
IIT, Kanpur  
CPCB, Zonal Office, Lucknow  
Patna University, Patna  
BCKV, West Bengal